

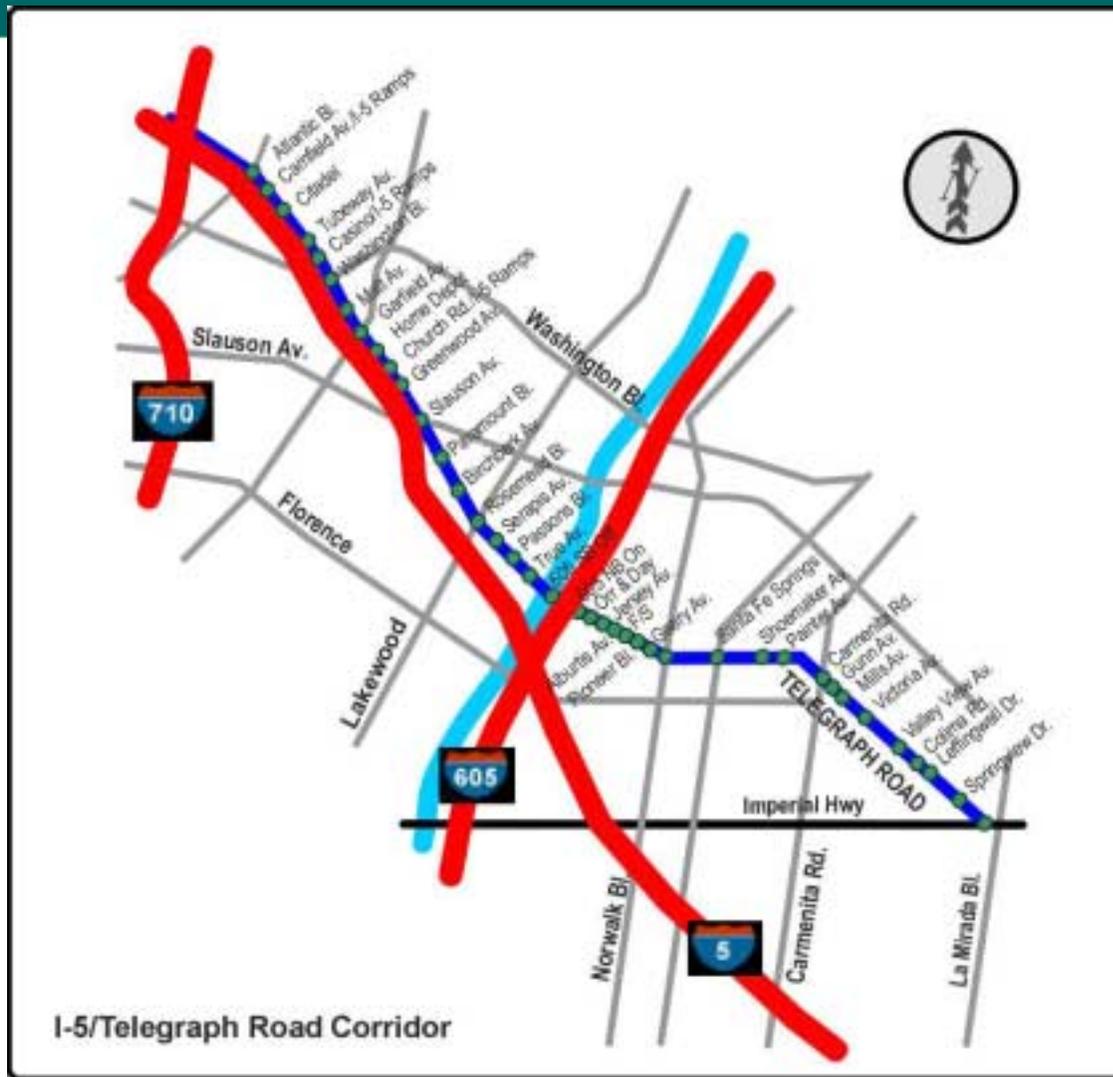
**Gateway Cities
Traffic Signal Synchronization and
Bus Speed Improvement Project
I-5/Telegraph Road Corridor
Agency Pre-Design Meetings**



Agenda

1. Project Background
2. Current Agency Equipment
3. Current Operations
4. Equipment Upgrades
5. Future Operations



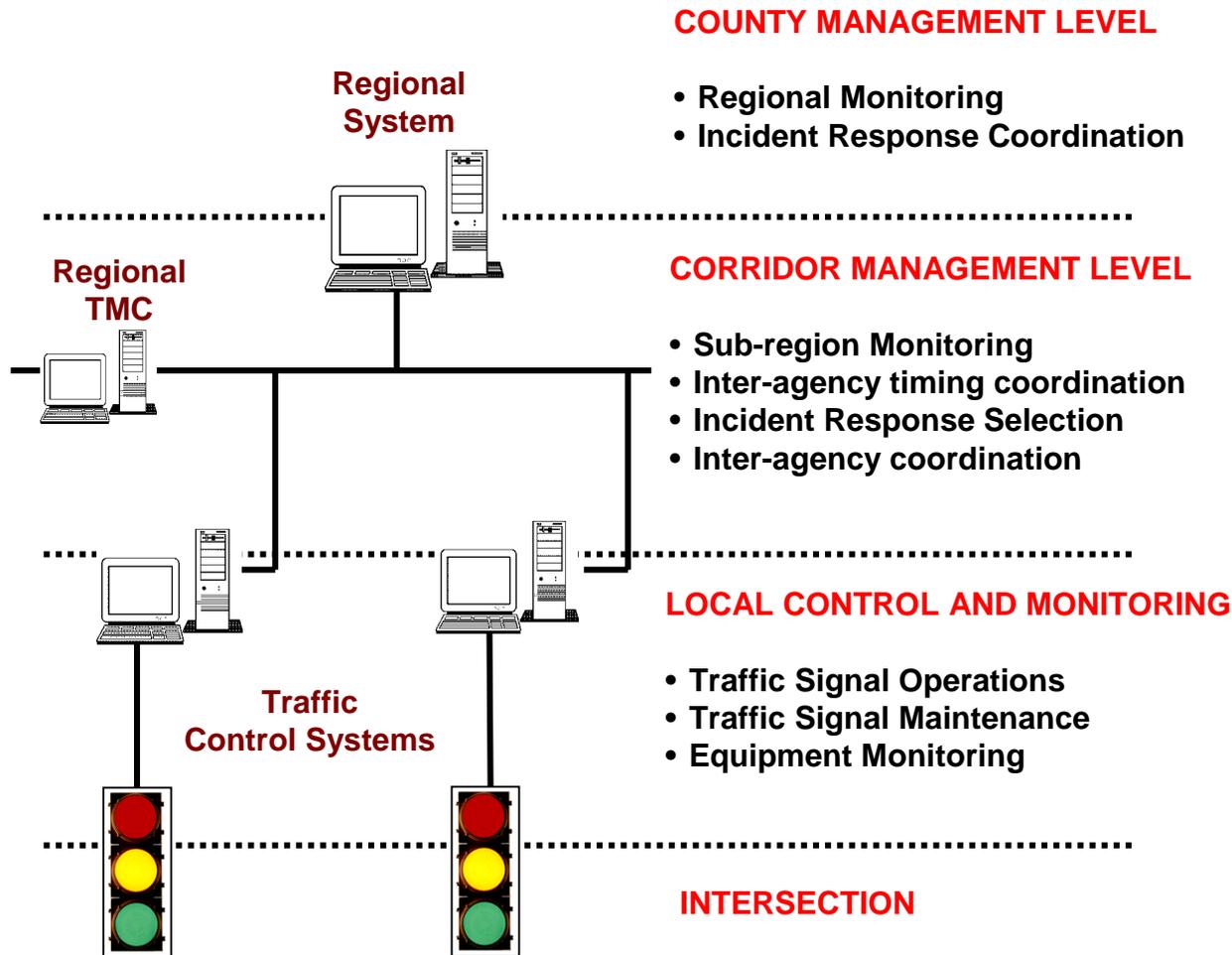


I-5/Telegraph Road Corridor

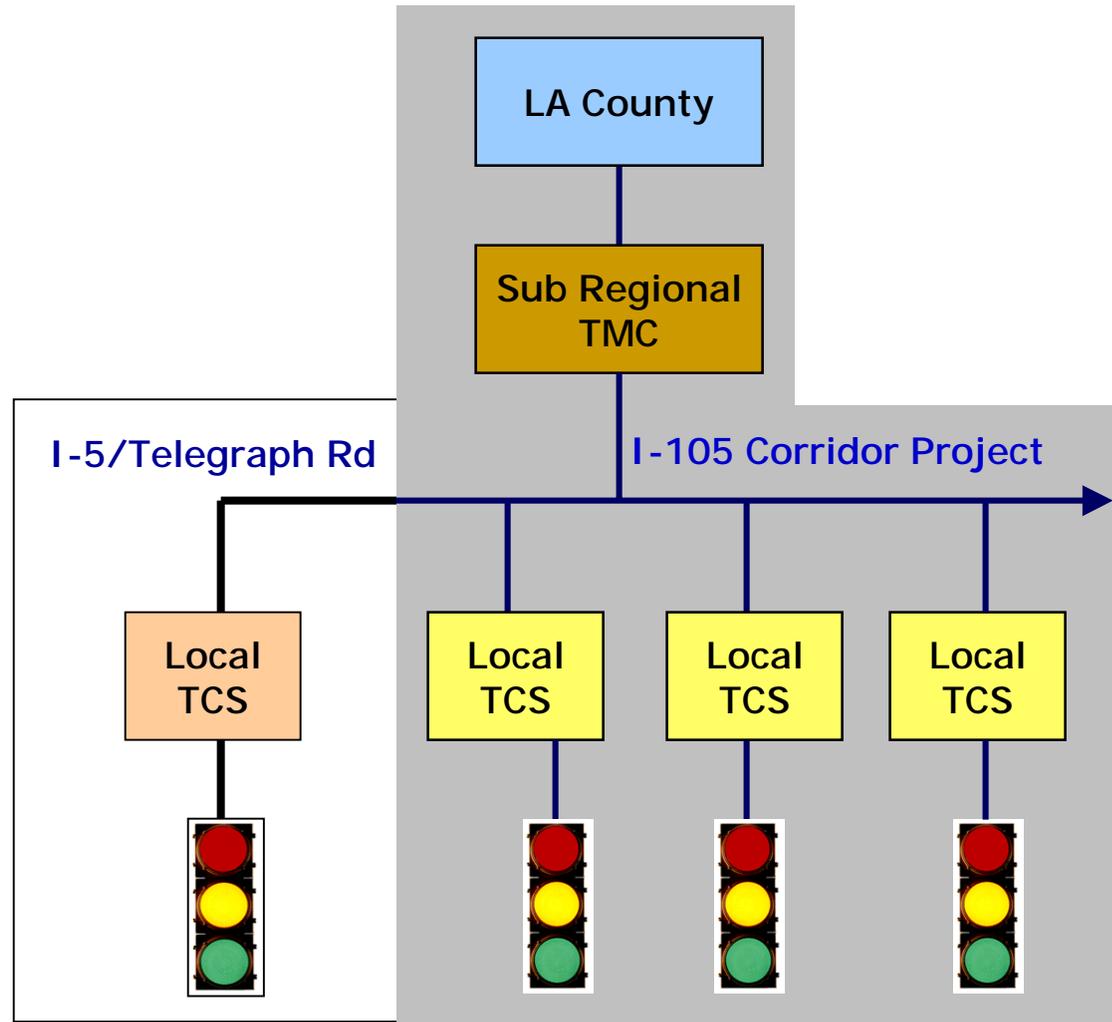


Gardner Transportation Systems Inc
 A Siemens company

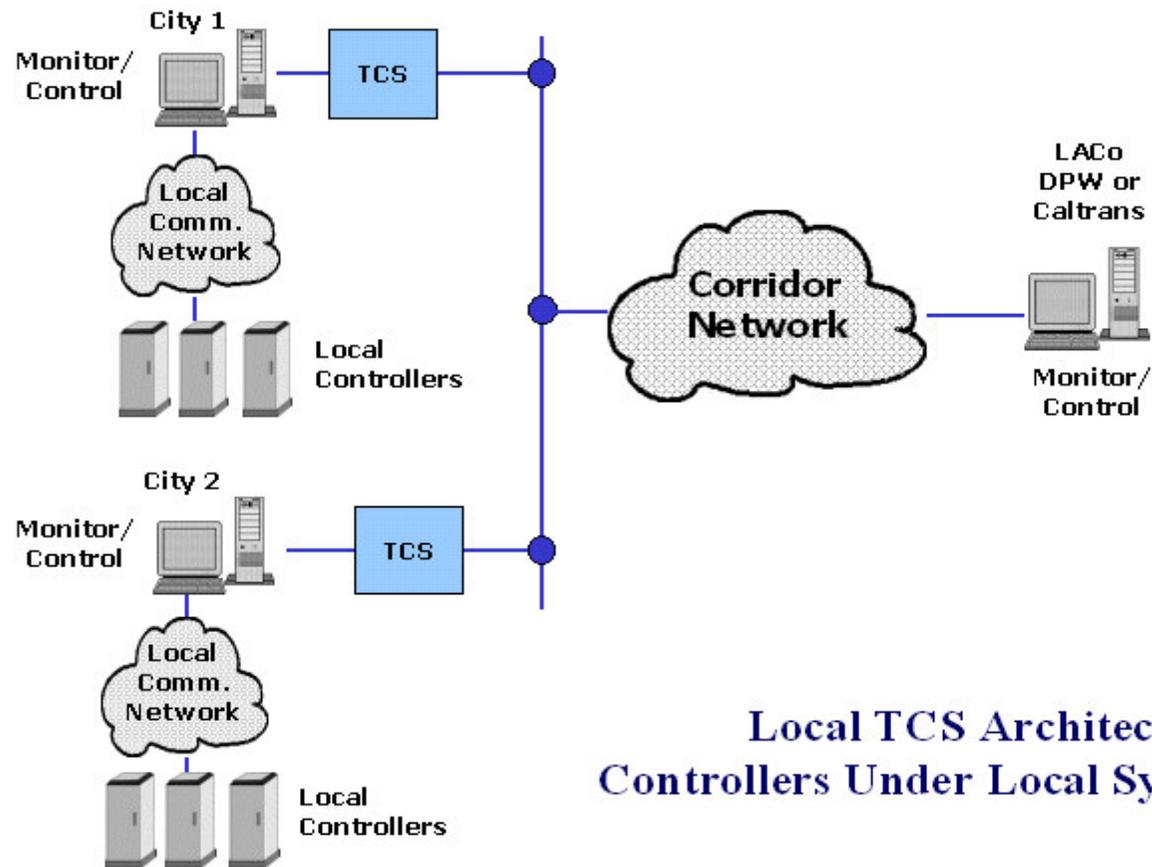
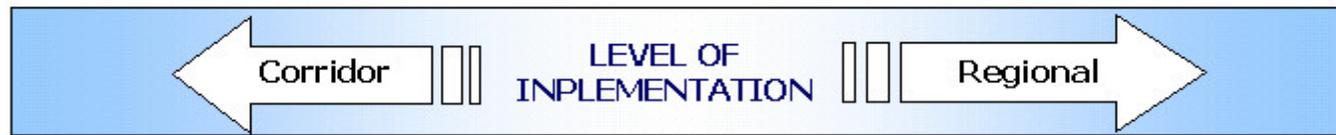
County Architecture Functions



Concurrent Projects



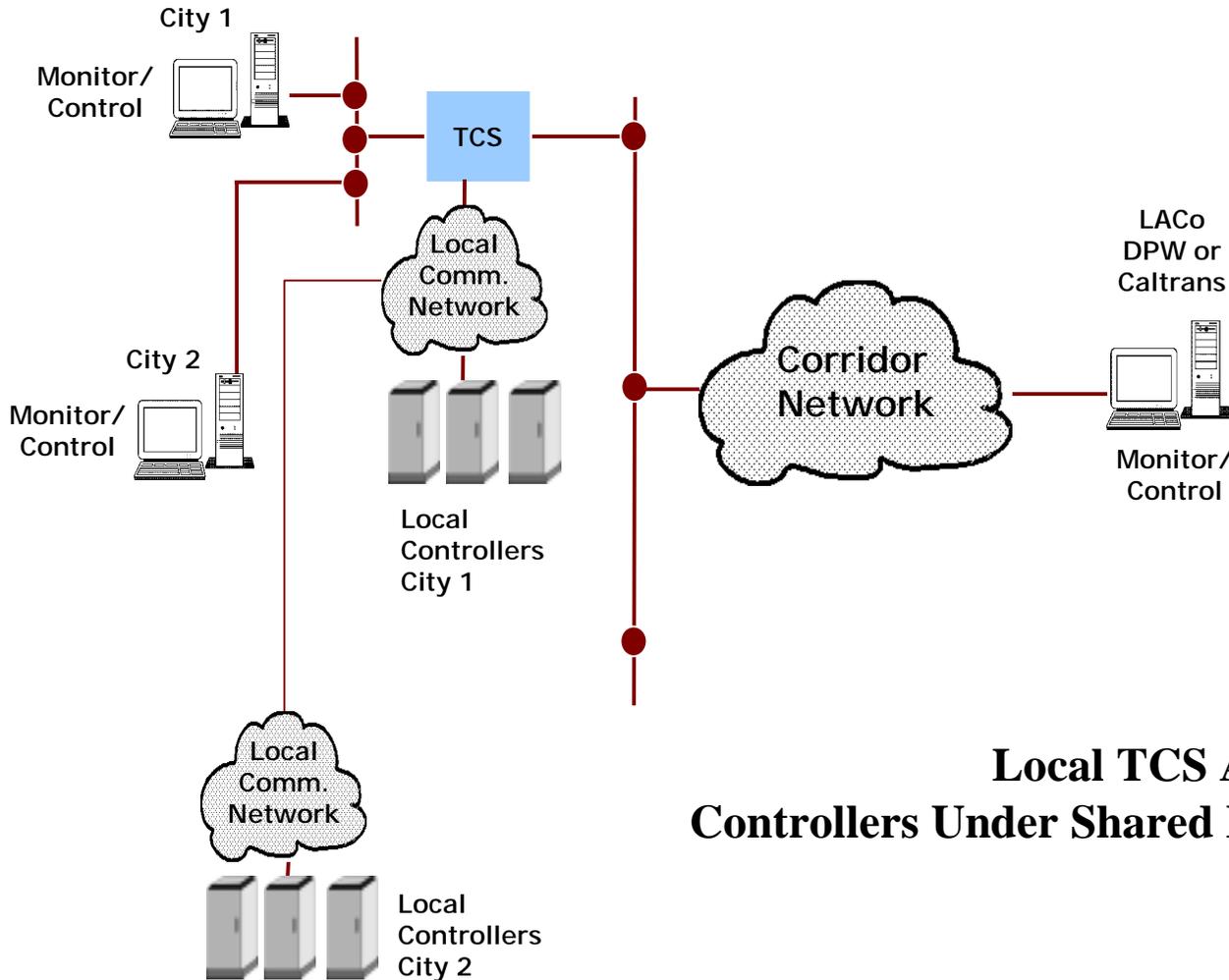
Concept of Local TCS Architecture (1)



**Local TCS Architectures
Controllers Under Local System**



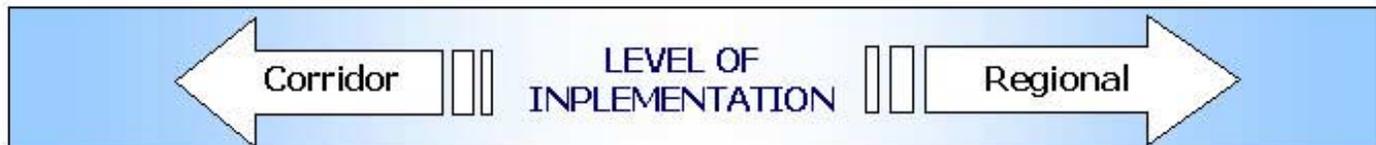
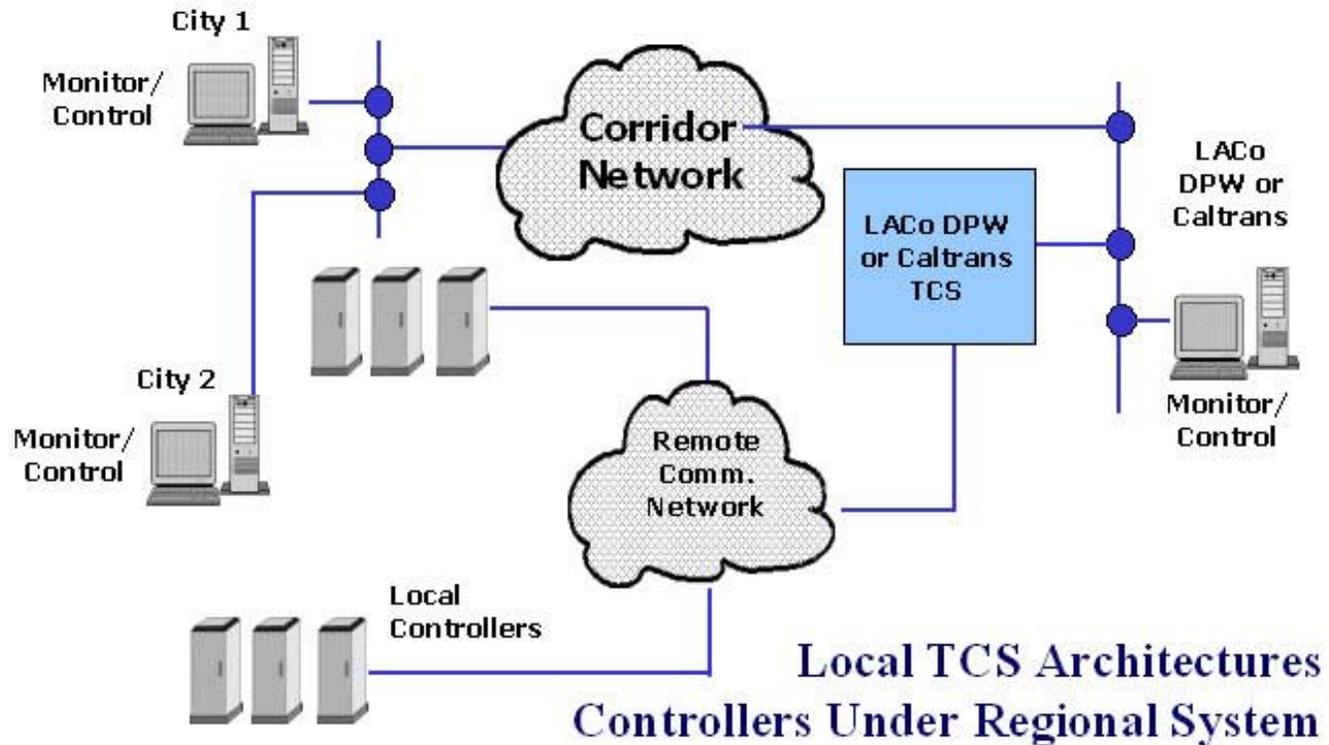
Concept of Local TCS Architecture (2)



Local TCS Architectures Controllers Under Shared Local System



Concept of Local TCS Architecture (3)



Project Issues

- Advanced Traffic Management System
 - Relationship between Telegraph Road and other signals
 - Accommodating local agency requirements
 - Accommodating shared operational responsibilities
- Communications System
 - Field Interconnect
 - The Sub-Regional Network
 - Video
 - National Standards
- System Integration
 - Corridor
 - Regional



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Equipment Upgrades

Upgrades will be funded under the project as long as they are needed to meet the project requirements. E.g:

- Controller Upgrades for:
 - communications
 - additional detection
- System Upgrades for:
 - regional interface
 - new functionality
- Communication upgrades for:
 - Support of non-proprietary protocols e.g. NTCIP



Intersection Upgrade Options (examples)

- Controller
 - NEMA
 - 170
- Detection
 - Loop
 - Video



Signal Controller Upgrade Options (examples)

170 (existing)

- 170 (HC11 Board)
- 170 with 470i Board
- 170 ATC (Engine Board upgrade)
- 2070
- (Future) Advanced Transportation Controller (not defined)

NEMA

- Same supplier; new equipment
- New Supplier
- 2070
- (Future) Advanced Transportation Controller (not defined)



Interconnect Upgrade Options (examples)

- Hardwire
 - Copper to replace leased lines
 - Copper replacement
- Fiber Optic
- Wireless
 - Spread Spectrum
 - Microwave
 - Leased services
 - Metricom
 - AT&T CDPD



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Future Operations

System Operations

Signal Timing

Inter-agency Coordination

Special Event Management

Incident Response

System Management

Equipment Monitoring

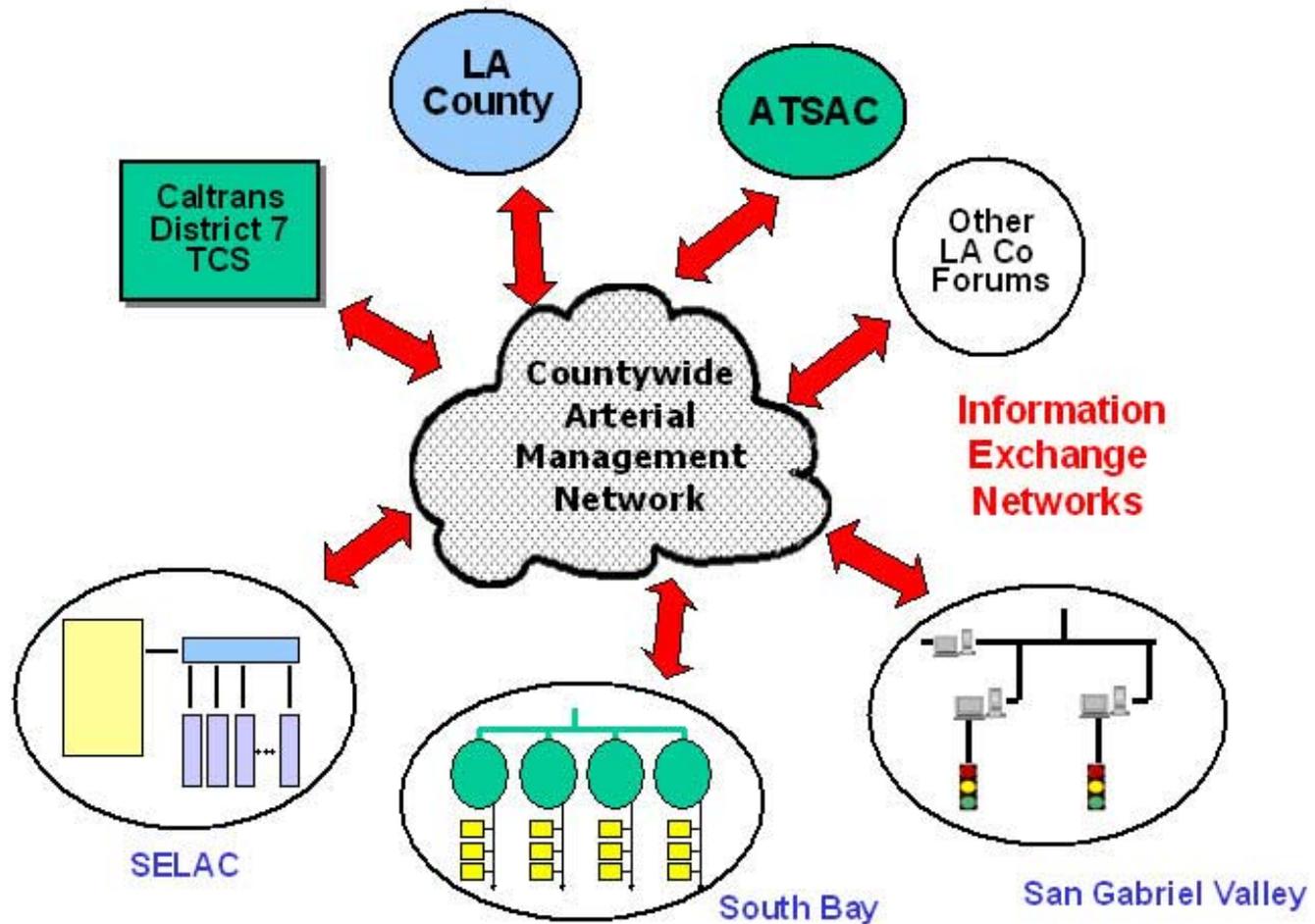
Back-ups

Upgrades



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Concept of Integration - Arterial



Concept of Integration - Regional

